



## SEQUENCE LISTING

<110> Salceda, Susana  
Sun, Yongming  
Recipon, Herve  
Cafferkey, Robert

<120> A NOVEL METHOD OF DIAGNOSING, MONITORING, STAGING, IMAGING AND  
TREATING VARIOUS CANCERS

<130> DEX-0172

<140> 09/763,978

<141> 2001-02-28

<150> PCT/US99/19655

<151> 1999-09-01

<150> 60/098,880

<151> 1998-09-02

<160> 16

<170> PatentIn version 3.1

<210> 1

<211> 2587

<212> DNA

<213> Homo sapien

<400> 1

```
ggaaggcagc gggcagctcc actcagccag tacccagata cgctgggaac cttccccagc      60
catggcttcc ctggggcaga tcctcttctg gagcataatt agcatcatca ttattctggc      120
tggagcaatt gcactcatca ttggctttgg tatttcaggg agacactcca tcacagtcac      180
tactgtcgcc tcagctggga acattgggga ggatggaatc ctgagctgca cttttgaacc      240
tgacatcaaa ctttctgata tcgtgatata atggctgaag gaaggtgttt taggcttggt      300
ccatgagttc aaagaaggca aagatgagct gtcggagcag gatgaaatgt tcagaggccg      360
gacagcagtg tttgctgata aagtgatagt tggcaatgcc tctttgcggc tgaaaaacgt      420
gcaactcaca gatgctggca cctacaaatg ttatatcatc acttctaaag gcaaggggaa      480
tgctaaccct gagtataaaa ctggagcctt cagcatgccg gaagtgaatg tggactataa      540
tgccagctca gagaccttgc ggtgtgaggc tccccgatgg ttccccagc ccacagtgg      600
ctgggcatcc caagttgacc agggagccaa cttctcggaa gtctccaata ccagctttga      660
gctgaactct gagaatgtga ccatgaagggt tgtgtctgtg ctctacaatg ttacgatcaa      720
caacacatac tcctgtatga ttgaaaatga cattgccaaa gcaacagggg atatcaaagt      780
gacagaatcg gagatcaaaa ggcggagtca cctacagctg ctaaactcaa aggcttctct      840
gtgtgtctct tctttctttg ccatcagctg ggcacttctg cctctcagcc cttacctgat      900
```

gctaaaataa tgtgccttgg ccacaaaaaa gcatgcaaag tcattgttac aacagggatc 960  
 tacagaacta ttccaccacc agatatgacc tagttttata tttctgggag gaaatgaatt 1020  
 catatctaga agtctggagt gagcaaacia gagcaagaaa caaaaagaag ccaaaagcag 1080  
 aaggctccaa tatgaacaag ataaatctat cttcaaagac atattagaag ttgggaaaat 1140  
 aattcatgtg aactagacaa gtgtgttaag agtgataagt aaaatgcacg tggagacaag 1200  
 tgcaccccca gatctcaggg acctccccct gcctgtcacc tggggagtga gaggacagga 1260  
 tagtgcattg tctttgtctc tgaattttta gttatatgtg ctgtaatgtt gctctgagga 1320  
 agccccctga aagtctatcc caacatatcc acatcttata ttccacaaat taagctgtag 1380  
 tatgtaccct aagacgtgc taattgactg ccacttcgca actcaggggc ggctgcattt 1440  
 tagtaatggg tcaaatgatt cactttttat gatgcttcca aagggtgcctt ggcttctctt 1500  
 cccaactgac aaatgccaaa gttgagaaaa atgatcataa ttttagcata aacagagcag 1560  
 tcggcgacac cgatttttata aataaactga gcaccttctt tttaaacaaa caaatgcggg 1620  
 tttatttctc agatgatgtt catccgtgaa tgggtccaggg aaggacctt caccttgact 1680  
 atatggcatt atgtcatcac aagctctgag gcttctcctt tccatcctgc gtggacagct 1740  
 aagacctcag ttttcaatag catctagagc agtgggactc agctggggtg atttcgcccc 1800  
 ccatctccgg gggaatgtct gaagacaatt ttggttacct caatgagggg gtggaggagg 1860  
 atacagtgt actaccaact agtggataaa ggccagggat gctgctcaac ctctaccat 1920  
 gtacaggacg tctccccatt acaactacc aatccgaagt gtcaactgtg tcaggactaa 1980  
 gaaaccctgg ttttgagtag aaaagggcct ggaaagaggg gagccaacia atctgtctgc 2040  
 ttctcacatt agtcattggc aaataagcat tctgtctctt tggctgctgc ctgagcacag 2100  
 agagccagaa ctctatcggg caccaggata acatctctca gtgaacagag ttgacaaggc 2160  
 ctatgggaaa tgcctgatgg gattatcttc agcttggtga gcttctaagt ttctttccct 2220  
 tcattctacc ctgcaagcca agttctgtaa gagaaatgcc tgagttctag ctgaggtttt 2280  
 ctactctga atttagatct ccagaccctt cctggccaca attcaaatta aggcaacaaa 2340  
 catatacctt ccatgaagca cacacagact tttgaaagca aggacaatga ctgcttgaat 2400  
 tgaggccttg aggaatgaag ctttgaagga aaagaatact ttgtttccag ccccttccc 2460  
 acactcttca tgtgttaacc actgccttcc tggaccttgg agccacggtg actgtattac 2520  
 atgttggtat agaaaactga ttttagagtt ctgatcgttc aagagaatga ttaaataatac 2580  
 atttctt 2587

<212> DNA  
 <213> Homo sapien

<400> 2

cacagagaga ggcagcagct tgctcagcgg acaaggatgc tgggcgtgag ggaccaaggc	60
ctgccctgca ctcgggcctc ctccagccag tgctgaccag ggacttctga cctgctggcc	120
agccaggacc tgtgtgggga ggccctcctg ctgccttggg gtgacaatct cagctccagg	180
ctacagggag accgggagga tcacagagcc agcatgttac aggatcctga cagtgatcaa	240
cctctgaaca gcctcgatgt caaacccctg cgcaaaccac gtatcccat ggagaccttc	300
agaaagggtg ggatcccat catcatagca ctactgagcc tggcgagtat catcattgtg	360
gttgtcctca tcaaggatg tctggataaa tactacttcc tctgcgggca gcctctccac	420
ttcatcccga ggaagcagct gtgtgacgga gagctggact gtcccttggg ggaggacgag	480
gagcactgtg tcaagagctt ccccgaggga cctgcagtgg cagtccgcct ctccaaggac	540
cgatccacac tgcaggtgct ggactcggcc acagggaaact ggttctctgc ctgtttcgac	600
aacttcacag aagctctcgc tgagacagcc tgtaggcaga tgggctacag cagcaaacc	660
actttcagag ctgtggagat tggcccagac caggatctgg atgttggtga aatcacagaa	720
aacagccagg agcttcgcat gcggaactca agtgggccct gtctctcagg ctccctgggtc	780
tccttgcaact gtcttgctg tgggaagagc ctgaagaccc cccgtgtggt ggggtgggag	840
gaggcctctg tggattcttg gccttggcag gtcagcatcc agtacgaaa acagcacgtc	900
tgtggaggga gcatcctgga cccccactgg gtcctcacgg gcagcccact gcttcaggaa	960
acataccgat gtgttcaact ggaagggtgcg ggcaggctca gacaaactgg gcagcttccc	1020
atccctggct gtggccaaga tcatcatcat tgaattcaac cccatgtacc ccaaagacaa	1080
tgacatcgcc ctcatgaagc tgcagttccc actcactttc tcaggcacag tcaggcccat	1140
ctgtctgccc ttctttgatg aggagctcac tccagccacc ccactctgga tcattggatg	1200
gggctttacg aagcagaatg gaggaagat gtctgacata ctgctgcagg cgtcagtcca	1260
ggtcattgac agcacacggt gcaatgcaga cgatgcgtac cagggggaag tcaccgagaa	1320
gatgatgtgt gcaggcatcc cggaaggggg tgtggacacc tgccagggtg acagtgggtg	1380
gcccctgatg taccaatctg accagtggca tgtgggtggc atcgttagct ggggctatgg	1440
ctgcgggggc ccgagcacc caggagtata caccaaggtc tcagcctatc tcaactggat	1500
ctacaatgtc tggaaggctg agctgtaatg ctgctgcccc ttgagcgtgc tgggagccgc	1560
ttccttcctg ccctgcccac ctggggatcc cccaaagtca gacacagagc aagagtcccc	1620
ttgggtacac ccctctgccc acagcctcag catttcttgg agcagcaaag ggctcaatt	1680
cctataagag accctcgag cccagaggcg cccagaggaa gtcagcagcc ctgctcggc	1740

```

cacacttggg gctcccagca tcccagggag agacacagcc cactgaacaa ggtctcaggg 1800
gtattgctaa gccaaagaagg aactttccca cactactgaa tggaagcagg ctgtcttgta 1860
aaagcccaga tcaactgtggg ctggagagga gaaggaaagg gtctgcgcca gccctgtccg 1920
tcttcaccca tccccaaagg tactagagca agaaaccagt tgtaatatataa aatgcactgc 1980
cctactgttg gtatgactac cgttacctac tgttgcatg ttattacagc tatggccact 2040
attattaaag agctgtgtaa catctctggc 2070

```

```

<210> 3
<211> 1709
<212> DNA
<213> Homo sapien

```

```

<400> 3
agcagactca caccagaact acattccctg gccccctgcc tgtgtgcttc tggccaggcc 60
ttggttggca agtctgacct gagaaaagga tctgcagaaa atcagactat gggatcactt 120
tgtttgtgca ttgggaatga cattctttcc cccccagga aaacctttgg gactttcaga 180
gacattgtgg ctagccaacc acatggtcag cctcaaagtt gagaggctca gtaaccctcc 240
tatccctaga gaattccaaa gtgtggatgt aatttaacta gaaagccatt ggtgactatc 300
tgtgatcctc tggaagtatg ctatgttgtg tatactctgc atccaaagcc agagggaacc 360
acaatgacta gtaaaacggg ggtctcaatg cccacttagc ctctgcctct gaatttgacc 420
atagtggcgt tcagctgata gagcgggaag aagaaatatg cattttttat gaaaaataa 480
atatccaaga gaagatgaaa ctaaatggag aaattgaaat acatctactg gaagaaaaga 540
tccaattcct gaaaatgaag attgctgaga agcaaagaca aatttgtgtg acccagaaat 600
tactgccagc caagagggtcc ctggatgccg acctagctgt gctccaaatt cagttttcac 660
agtgtacaga cagaattaaa gacctggaga aacagttcgt aaagcctgat ggtgagaata 720
gagctcgctt ccttccaggg aaagatctga ccgaaaaaga aatgatccaa aaattagaca 780
agctggaact acaactggcc aagaaggagg agaagctgct ggagaaggat ttcactctatg 840
agcaggctctc caggctcaca gacaggctct gcagcaaac tcagggctgc aagcaggaca 900
cactgctctt agccaagaag atgaatggct atcaaagaag gatcaaaaat gcaactgaga 960
aatgatggc tcttgttgct gagctgtcca tgaaacaagc cctaaccatt gaactccaaa 1020
aggaagtcag ggagaaagaa gacttcactc tcaacttgcaa ttccaggata gaaaaaggtc 1080
tgccactcaa taaggaaatt gagaaagaat gggtgaaagt ccttcgagat gaagaaatgc 1140
acgccttggc catcgctgaa aagtctcagg agttcttgga agcagataat cgccagctgc 1200
ccaatgggtg ttacacaact gcagagcagc gtccgaatgc ctacatccca gaagcagatg 1260

```

```

ccactcttcc tttgccaaaa ctttatggtg ctttggctcc ttttaaacc agtgaacctg 1320
gagccaatat gaggcacata aggaaacctg ttataaagcc agttgaaatc tgaatatgtg 1380
aacaatatcca ggctctctca ggaaaagact tcaaccaggc ttccttgtag ccacagggtg 1440
aaaatgtgag cataatactt ctaatattat tgataagtaa ggtaaccaca attagtcagc 1500
aacagagtac aacagggttt ctatttacc accaactact atacctttca tgacgttgaa 1560
tgggacatag aactgtccta cttttatgtc aaagtatata tttgaatcgc ttatattttc 1620
tttttcactc tttatattga gtacattcca gaaatttgta gtaggcaagg tgctataaaa 1680
atgcactaaa aataaatctg ttctcaatg 1709

```

```

<210> 4
<211> 257
<212> DNA
<213> Homo sapien

```

```

<400> 4
ttaatgggta agtatttttt atatgcttta gctatagcta aagaaaactg atacttaaca 60
aagttgaata gtattattca ctggtgctcc taaaatattg tttttcagtg taaaatatgc 120
atatcttcta tatttaatat gaaagtcttg aaatgtatca gacagaaggg gatttcagtt 180
tgcaaataat gagcaatgta gcaattttta cacatttcat aaatatatat ttgtgcattg 240
gtggagagca ccatttg 257

```

```

<210> 5
<211> 359
<212> DNA
<213> Homo sapien

```

```

<400> 5
gcctgagagc acttagcggt catgagtgtc cccaccatgg cctggatgat gcttctcctc 60
ggactccttg cttatggatc aggtcaggga gtggattctc agactgtggt gaccaagag 120
ccatcgttat cagtgtcccc tggaggggaca gtcacactca cttgtggctt ggctctgac 180
tcagtctcta ctaatttctt cccacctgg taccagcaga cccaggcca ggctccacgc 240
acgctcatct acagcacaag cactcgctct tctgggggtc ctgatcgttt ctctggctcc 300
atccttgggg acaaagctgc cctcaccatt acggggggccc aggcagatga tgaatctga 359

```

```

<210> 6
<211> 1372
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature

```

<222> (6)..(6)  
 <223> n = a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (9)..(9)  
 <223> n = a, c, g or t

<400> 6  
 ccttanagnc ttggttgcca aacagaatgc ccatatccgt cttacttggtg aggaagcttg 60  
 ccttggggcgc cctctgctgg ccctcctgaa gctaacaggg gcgagtgtctc ggtgggtttac 120  
 aaattgcctc catgcagact atgaaactgt tcagcctgct atagttagat ctctggcact 180  
 ggcccaggag gtcttgacaga ttgacagatc aaggagaacc caggagtttc aaagaagcgg 240  
 ctagtaaagg tctctgagat ccttgactca gctacatcct cagggtagga ggaagatggc 300  
 ttccagaagc atgcggctgc tcctattgct gagctgcctg gccaaaacag gagtccctggg 360  
 tgatatcatc atgagaccca gctgtgctcc tgggatgggtt ttaccacaag tccaattgct 420  
 atgggttactt caggaagctg aggaactggg ctgatgccga gctcgagtgt cagtcttacg 480  
 gaaacggagc ccacctggca tctatcctga gtttaaagga agccagcacc atagcagagt 540  
 acataagtgg ctatcagaga agccagccga tatggattgg cctgcacgac ccacagaaga 600  
 ggcagcagtg gcagtggatt gatggggcca tgtatctgta cagatcctgg tctggcaagt 660  
 ccatgggttg gaacaagcac tgtgctgaga tgagctccaa taacaacttt ttaacttga 720  
 gcagcaacga atgcaacaag cgccaacact tcctgtgcaa gtaccgacca tagagcaaga 780  
 atcaagattc tgctaactcc tgcacagccc cgtcctcttc ctttctgcta gcctggctaa 840  
 atctgctcat tatttcagag gggaaacctt gcaaactaag agtgataagg gccctactac 900  
 actggctttt ttaggcttag agacagaaac tttagcattg gccagtagt ggcttctagc 960  
 tctaaatgtt tgccccgcca tccctttcca cagtatcctt cttccctcct ccctgtctc 1020  
 tggctgtctc gagcagtcta gaagagtga tctccagcct atgaaacagc tgggtctttg 1080  
 gccataagaa gtaaagattt gaagacagaa ggaagaaact caggagtaag cttctagccc 1140  
 ccttcagctt ctacaccctt ctgccctctc tccattgcct gcacccacc ccagccactc 1200  
 aactcctgct tgtttttcct ttggccatgg gaagggtttac cagtagaatc cttgctaggt 1260  
 tgatgtgggc catacattcc ttaataaac cattgtgtac ataagagggt gctgtgttcc 1320  
 agttcagtaa atgggtgaatg tggaaaagtg aaataagacc aagaaataca aa 1372

<210> 7  
 <211> 291  
 <212> DNA

<213> Homo sapien

<220>

<221> misc\_feature

<222> (277)..(277)

<223> n= a, c, g, or t

<400> 7

```
agaatggtag tagtaagaag aagaaaaata gaggatctga atgtattttg aaggtagagt      60
ccactggact tagagatgga ttgaatgtgg aagattaagg aaagggagaa atgaaagata      120
gtcttaggtt tcatcttcag atgactgggt gaacagcagt gttctttgct aagatgggga      180
agactaggga aaagagccag ttctgtattg agcatattat atttaagaca atcccatctg      240
ggtccaaaga caatgttgat tttttttctt agatacntgc cctttagacc t                291
```

<210> 8

<211> 1275

<212> DNA

<213> Homo sapien

<220>

<221> misc\_feature

<222> (410)..(410)

<223> n= a, c, g, or t

<220>

<221> misc\_feature

<222> (728)..(756)

<223> n= a, c, g, or t

<220>

<221> misc\_feature

<222> (957)..(957)

<223> n= a, c, g, or t

<400> 8

```
attctagaac atatgtataa gctaaaaaca gtattttact cagatcagta gttatcgtgt      60
ctatcagcta taaaaaaaaat caactgccag ccaagaactt taaaacttta agctgtgtat      120
tatagaaccg ttttgtgtag cattggaata ttgtccattt tgtaagtcac tgtgaatgtt      180
cttaattatc agcttgaagg tattttttgta ttaaaagttg acattgaaga acctaagtgg      240
atgatgggat ttggggccag tagtgaaagt atgtttcctc taaaatattt ccctaaacag      300
tggtatacat gggtatttta ttatgagatt tgtatatgtt ctgtgtttct ctgtgaacaa      360
tgtttcagtc tctctgtcac catatgtaag gggaagtcca caaatatagn actacattgc      420
acaaaactaa aattgttaat tacaagaaaa tatagggtgct taccttttga aggtttatta      480
atacatatgg ttgtcacaaat acgtatatat gataaatggg gtacatatat agatgtttat      540
```

```

ggtgtataaa tttttctata cccaattaga attatcttcc tgattcttta ttcaataaca      600
tgctaattcc tcttctatgt tctatagtga cagaatgcta acttttctta taccctggca      660
gaggacagag gagtctggtc taggatgggg aactgaattt ttgaacgaaa aggaaagaga      720
aaggatgnnn nnnnnnnnnn nnnnnnnnnn nnnnnntaat gtttcttagt cattttgatt      780
ggccatttga acagtctaca agtttaacgt tatttccagt gaagtaggat ggctgaccta      840
gcaatacatg tttcttcaaa agggtaaaca tgcttttagtg acctaaagct aaattttgta      900
catttgacat caggggtggt ataagtactg cacttaatac aaagctattt ctcaatngtg      960
ttatTTTTga gacaaatTTT tcttcaccat taacttcttg ttggtagctt tttgTTTTgt    1020
aaaaattgag agatggcaat gcttatctca accagattat ccatctgcag aattaaggta    1080
tgcaactggg aaataaaaaga caaatgctcc agtttgtctt tctcaacctt tgagttctta    1140
acctttgagt taaaacctag tctaaatagt gggaatgtct tgggtttacag taaggTTTTc    1200
ttgggaagga tcttggtttt gtgatctatt tgtgaattaa ggagtagatg ttaaccatta    1260
ttttatagat aagtg                                           1275

```

```

<210> 9
<211> 2479
<212> DNA
<213> Homo sapien

```

```

<400> 9
gtcatattga acattccaga tacctatcat tactcgatgc tgttgataac agcaagatgg      60
ctttgaactc agggtcacca ccagctattg gaccttacta tgaaaaccat ggataccaac    120
cggaaaaccc ctatcccgca cagcccaactg tgggtccccc tgtctacgag gtgcatccgg    180
ctcagtacta cccgtccccc gtgccccagt acgccccgag ggtcctgacg caggcttcca    240
accccgctcg ctgcacgcag cccaaatccc catccgggac agtgtgcacc tcaaagacta    300
agaaagcact gtgcatcacc ttgacctggg ggaccttccct cgtgggagct gcgctggccg    360
ctggcctact ctggaagttc atgggcagca agtgctccaa ctctgggata gagtgcgact    420
cctcaggtac ctgcatcaac ccctctaact ggtgtgatgg cgtgtcacac tgccccggcg    480
gggaggacga gaatcgggtg gttcgcctct acggaccaa cttcatcctt cagatgtact    540
catctcagag gaagtcctgg caccctgtgt gccaaagacga ctggaacgag aactacgggc    600
gggcggcctg cagggacatg ggctataaga ataattttta ctctagccaa ggaatagtgg    660
atgacagcgg atccaccagc tttatgaaac tgaacacaag tgccggcaat gtcgatatct    720
ataaaaaact gtaccacagt gatgcctggt cttcaaaagc agtggtttct ttacgctggt    780
tagcctgcgg ggtcaacttg aactcaagcc gccagagcag gatcgtgggc ggtgagagcg    840

```



cgctccccggg	ggcctggccc	tggcaggtca	gcctgcacgt	ccagaacgtc	cacgtgtgcg	900
gaggctccat	catcaccccc	gagtggatcg	tgacagccgc	ccactgcgtg	gaaaaacctc	960
ttaacaatcc	atggcattgg	acggcatttg	cggggatttt	gagacaatct	ttcatgttct	1020
atggagccgg	ataccaagta	caaaaagtga	tttctcatcc	aaattatgac	tccaagacca	1080
agaacaatga	cattgcgctg	atgaagctgc	agaagcctct	gactttcaac	gacctagtga	1140
aaccagtgtg	tctgcccaac	ccaggcatga	tgtgcagcc	agaacagctc	tgctggattt	1200
ccgggtgggg	ggccaccgag	gagaaagga	agacctcaga	agtgtgaac	gctgccaagg	1260
tgcttctcat	tgagacacag	agatgcaaca	gcagatatgt	ctatgacaac	ctgatcacac	1320
cagccatgat	ctgtgccggc	ttcctgcagg	ggaacgtcga	ttcttgccag	ggtgacagtg	1380
gagggcctct	ggtcacttcg	aacaacaata	tctggtggct	gataggggat	acaagctggg	1440
gttctggctg	tgccaaagct	tacagaccag	gagtgtacgg	gaatgtgatg	gtattcacgg	1500
actggattta	tcgacaaatg	aaggcaaacg	gctaataccac	atggtcttcg	tccttgacgt	1560
cgttttacia	gaaaacaatg	gggctggttt	tgcttccccg	tgcatgattt	actcttagag	1620
atgattcaga	ggtcacttca	ttttatttaa	acagtgaact	tgtctggctt	tggcactctc	1680
tgccatactg	tgcaggctgc	agtggctccc	ctgccagacc	tgctctccct	aacccttgtt	1740
ccgcaagggg	tgatggccgg	ctggttgtgg	gcaactggcg	tcaattgtgg	aaggaagagg	1800
gttggaggct	gccccatttg	agatcttcct	gctgagtcct	ttccaggggc	caattttgga	1860
tgagcatgga	gctgtcactt	ctcagctgct	ggatgacttg	agatgaaaaa	ggagagacat	1920
ggaaagggag	acagccaggt	ggcacctgca	gcggctgccc	tctggggcca	cttggtagtg	1980
tccccagcct	acttcacaag	gggattttgc	tgatgggttc	ttagagcctt	agcagccctg	2040
gatggtggcc	agaaataaag	ggaccagccc	ttcatgggtg	gtgacgtggg	agtcacttgt	2100
aaggggaaca	gaaacatttt	tgttcttatg	gggtgagaat	atagacagtg	cccttggtgc	2160
gaggggaagca	attgaaaagg	aacttgccct	gagcactcct	ggtgcaggtc	tccacctgca	2220
cattgggtgg	ggctcctggg	agggagactc	agccttcctc	ctcatcctcc	ctgacctgac	2280
tcctagcacc	ctggagagtg	aatgcccctt	ggtccctggc	agggcgccaa	gtttggcacc	2340
atgtcggcct	cttcaggcct	gatagtcatt	ggaaattgag	gtccatgggg	gaaatcaagg	2400
atgctcagtt	taagggtacac	tgtttccatg	ttatgtttct	acacattgat	ggtggtgacc	2460
ctgagttcaa	agccatctt					2479

<210> 10  
 <211> 576  
 <212> DNA

<213> Homo sapien

<400> 10

```

ttcaaagaca tattagaagt tgggaaaata attcatgtga actagacaag tgtgttaaga      60
gtgataagta aaatgcacgt ggagacaagt gcatccccag atctcaggga cctccccctg    120
cctgtcacct ggggagtgag aggacaggat agtgcattgt ctttgtctct gaatttttag    180
ttatatgtgc tgtaatgttg ctctgaggaa gcccttgga agtctatccc aacatatcca    240
catcttatat tccacaaatt aagctgtagt atgtacccta agacgctgct aattgactgc    300
cacttcgcaa ctcaggggag gctgcatttt agtaatgggt caaatgattc actttttatg    360
atgcttccaa aggtgccttg gcttctcttc ccaactgaca aatgccaaag ttgagaaaaa    420
tgatcataat tttagcataa acagagcagt cggcgacacc gattttataa ataaactgag    480
caccttcttt ttaaacaac aaatgcgggt ttatttctca gatgatgttc atccgtgaat    540
ggtccaggga aggacctttc accttgacta tatggc                                576

```

<210> 11

<211> 890

<212> DNA

<213> Homo sapien

<400> 11

```

caagctctga ggcttctcct ttccatcctg cgtggacagc taagacctca gttttcaata      60
gcatctagag cagtgggact cagctggggt gatttcgccc cccatctccg ggggaatgtc    120
tgaagacaat tttggttacc tcaatgaggg agtggaggag gatacagtgc tactaccaac    180
tagtggataa aggccaggga tgctgctcaa cctcctacca tgtacaggga cgtctcccca    240
ttacaactac ccaatccgaa gtgtcaactg tgtcaggact aagaaaccct ggttttgagt    300
agaaaagggc ctggaaagag gggagccaac aaatctgtct gcttcctcac attagtcatt    360
ggcaaataag cattctgtct ctttggctgc tgcctcagca cagagagcca gaactctatc    420
gggcaccagg ataacatctc tcagtgaaca gagttgacaa ggcctatggg aaatgcctga    480
tgggattatc ttcagcttgt tgagcttcta agtttctttc ccttcattct accctgcaag    540
ccaagttctg taagagaaat gcctgagttc tagctcaggt tttcttactc tgaatttaga    600
tctccagacc cttcctggcc acaattcaaa ttaaggcaac aaacatatac cttccatgaa    660
gcacacacag acttttgaaa gcaaggacaa tgactgcttg aattgaggcc ttgaggaaatg    720
aagctttgaa ggaaaagaat actttgtttc cagccccctt cccacactct tcatgtgtta    780
accactgcct tcctggacct tggagccacg gtgactgtat tacatgttgt tatagaaaac    840
tgattttaga gttctgatcg ttcaagagaa tgattaaata tacatttctc                                890

```

<210> 12  
 <211> 406  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (30)..(30)  
 <223> n= a, c, g, or t

<220>  
 <221> misc\_feature  
 <222> (248)..(248)  
 <223> n= a, c, g, or t

<220>  
 <221> misc\_feature  
 <222> (383)..(383)  
 <223> n= a, c, g, or t

<400> 12  
 gtgaatgtgg actataatgc cagctcagan accttgcggt gtgaggctcc ccgatggttc 60  
 cccagccca cagtggctcg ggcacccaa gttgaccagg gagccaactt ctcggaagtc 120  
 tccaatacca gctttgagct gaactctgag aatgtgacca tgaagggtgt gtctgtgctc 180  
 tacaatgtta cgatcaacaa cacatactcc tgtatgattg aaaatgacat tgccaaagca 240  
 acaggggnta tcaaagtgac agaatcggag atcaaaaggc ggagtcacct acagctgcta 300  
 aactcaaagg cttctctgtg tgtctcttct ttctttgcca tcagctgggc acttctgcct 360  
 ctcagccctt acctgatgct aanataatgt gccttggcca caaaaa 406

<210> 13  
 <211> 462  
 <212> DNA  
 <213> Homo sapien

<400> 13  
 ggaaggcagc ggcagctcca ctcagccagt acccagatac gctgggaacc ttccccagcc 60  
 atggcttccc tggggcagat cctcttctgg agcataatta gcatcatcat tattctggct 120  
 ggagcaattg cactcatcat tggctttggt atttcaggga gacactccat cacagtcact 180  
 actgtcgcct cagctgggaa cattggggag gatggaatcc tgagctgcac ttttgaacct 240  
 gacatcaaac tttctgatat cgtgatacaa tggctgaagg aagggtgtttt aggcttggtc 300  
 catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt cagaggccgg 360  
 acagcagtgt ttgctgatca agtgatagtt ggcaatgcct ctttgccggct gaaaaacgtg 420  
 caactcacag atgctggcac ctacaaatgt tatatcatca ct 462

<210> 14  
 <211> 272  
 <212> DNA  
 <213> Homo sapien

<400> 14  
 gcagcttgct cagcggacaa ggatgctggg cgtgaggac caaggcctgc cctgcactcg 60  
 ggctcctcc agccagtgt gaccaggac ttctgacctg ctggccagcc aggacctgtg 120  
 tggggaggcc ctctgtctgc cttgggtga caatctcagc tccaggctac agggagaccg 180  
 ggaggatcac agagccagca tggatcctga cagtgatcaa cctctgaaca gcctcgtcaa 240  
 ggtgattctg gataaatact acttcctctg cg 272

<210> 15  
 <211> 492  
 <212> PRT  
 <213> Homo sapien

<400> 15  
 Met Ala Leu Asn Ser Gly Ser Pro Pro Ala Ile Gly Pro Tyr Tyr Glu  
 1 5 10 15  
 Asn His Gly Tyr Gln Pro Glu Asn Pro Tyr Pro Ala Gln Pro Thr Val  
 20 25 30  
 Val Pro Thr Val Tyr Glu Val His Pro Ala Gln Tyr Tyr Pro Ser Pro  
 35 40 45  
 Val Pro Gln Tyr Ala Pro Arg Val Leu Thr Gln Ala Ser Asn Pro Val  
 50 55 60  
 Val Cys Thr Gln Pro Lys Ser Pro Ser Gly Thr Val Cys Thr Ser Lys  
 65 70 75 80  
 Thr Lys Lys Ala Leu Cys Ile Thr Leu Thr Leu Gly Thr Phe Leu Val  
 85 90 95  
 Gly Ala Ala Leu Ala Ala Gly Leu Leu Trp Lys Phe Met Gly Ser Lys  
 100 105 110  
 Cys Ser Asn Ser Gly Ile Glu Cys Asp Ser Ser Gly Thr Cys Ile Asn  
 115 120 125  
 Pro Ser Asn Trp Cys Asp Gly Val Ser His Cys Pro Gly Gly Glu Asp  
 130 135 140

Glu Asn Arg Cys Val Arg Leu Tyr Gly Pro Asn Phe Ile Leu Gln Met  
 145 150 155 160

Tyr Ser Ser Gln Arg Lys Ser Trp His Pro Val Cys Gln Asp Asp Trp  
 165 170 175

Asn Glu Asn Tyr Gly Arg Ala Ala Cys Arg Asp Met Gly Tyr Lys Asn  
 180 185 190

Asn Phe Tyr Ser Ser Gln Gly Ile Val Asp Asp Ser Gly Ser Thr Ser  
 195 200 205

Phe Met Lys Leu Asn Thr Ser Ala Gly Asn Val Asp Ile Tyr Lys Lys  
 210 215 220

Leu Tyr His Ser Asp Ala Cys Ser Ser Lys Ala Val Val Ser Leu Arg  
 225 230 235 240

Cys Leu Ala Cys Gly Val Asn Leu Asn Ser Ser Arg Gln Ser Arg Ile  
 245 250 255

Val Gly Gly Glu Ser Ala Leu Pro Gly Ala Trp Pro Trp Gln Val Ser  
 260 265 270

Leu His Val Gln Asn Val His Val Cys Gly Gly Ser Ile Ile Thr Pro  
 275 280 285

Glu Trp Ile Val Thr Ala Ala His Cys Val Glu Lys Pro Leu Asn Asn  
 290 295 300

Pro Trp His Trp Thr Ala Phe Ala Gly Ile Leu Arg Gln Ser Phe Met  
 305 310 315 320

Phe Tyr Gly Ala Gly Tyr Gln Val Gln Lys Val Ile Ser His Pro Asn  
 325 330 335

Tyr Asp Ser Lys Thr Lys Asn Asn Asp Ile Ala Leu Met Lys Leu Gln  
 340 345 350

Lys Pro Leu Thr Phe Asn Asp Leu Val Lys Pro Val Cys Leu Pro Asn  
 355 360 365

Pro Gly Met Met Leu Gln Pro Glu Gln Leu Cys Trp Ile Ser Gly Trp  
 370 375 380

Gly Ala Thr Glu Glu Lys Gly Lys Thr Ser Glu Val Leu Asn Ala Ala

Thr Asp Trp Ile Tyr Arg Gln Met Lys Ala Asn Gly  
485 490

```
<220>
<221> misc_feature
<222> (168)..(237)
<223> n=a, c, g or t
```

[illegible]

gcacacacag acttttgaaa gcaaggacaa tgactgcttg aattgaggcc ttgaggaatg	720
aagctttgaa ggaaaagaat actttgtttc cagccccctt cccacactct tcatgtgtta	780
accactgcct tcctggacct tggagccacg gtgactgtat tacatgttgt tatagaaaac	840
tgattttaga gttctgatcg ttcaagagaa tgattaaata tacatttcct	890